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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPTICAL COATINGS FOR ULTRAVIOLET AND INFRARED REFLECTION

Transmittance(%) 100 90 80 70 60 50 40 30 20 100 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000

Wavelength(nm)

(57) Abstract: A multilayer structure for shading ultraviolet and infrared light includes two or three layers of Ag; two or three layers of indium tin oxide (ITO); and dielectric oxide layers ranging from two layers to four layers. At least two Ag layers are formed to be in contact with the ITO layers as an upward or downward layer. Each dielectric oxide layer is made of a material which is selected from SiO₂, TiO₂, Al₂O₃, ZrO₂, Y₂O₃ and Ta₂O₅. The structure effectively shades ultraviolet and infrared light while transmitting visible light with a transmittance more than 85 %.



International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC7 B32B 7/02

According to International Patent Classification (IPC) or to both national classification and IPC

FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B32B 1/00~35/00, H05K 9/00, C03C 17/00, H01J 17/00, G02B 5/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean patents and applications for inventions since 1975

Korean utility models and applications for utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) IBM, PAJ, USPTO, EPO, Korean patent search system

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-2000-17060 A (NIPPON SHEET GLASS CO., LTD) 25 Mar 2000 see the abstract.	1 - 13
A	KR 10-1999-81917 A (NIPPON SHEET GLASS CO., LTD) 15 Nov 1999 see the abstract.	1 - 13
A	KR 10-2001-11593 A (SAMSUNG SDS CO., LTD) 15 Feb 2001 see the abstract.	1 - 13
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Further documents are listed in the continuation of Box C. X See patent family annex.				
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Date of the actual completion of the international search		Date of mailing of the international search report		
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Name and mailing address of the ISA/KR		Authorized officer		
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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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